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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,550	06/16/2000	Alan Nicholas Fleet	9001RF-34875	1122
7590	05/19/2004		EXAMINER	
Melvin A Hunn Hill & Hunn LLP 201 Main Street Suite 1440 Fort Worth, TX 76102-3105			THOMSON, WILLIAM D	
			ART UNIT	PAPER NUMBER
			2123	8
			DATE MAILED: 05/19/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/595,550	FLEET ET AL. <i>[Signature]</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	William D. Thomson	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 03 August 2001 and 16 June 2000.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-9 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 16 June 2000 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 6.
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. Claims 1-9 have been presented for examination.
2. Claims 1-9 have been examined and rejected.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on August 03, 2001 was considered by the examiner. However, during the Examiner's search of the prior art, articles that may be material to the patentability of the instant claimed invention have been uncovered that were authored by at least one of the named inventors. Applicant is respectfully reminded of their duty to disclose prior art that may become material to the patentability of the claimed invention.
4. The listing of references in the specification is not a proper information disclosure statement. 37 C.F.R. 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and M.P.E.P. § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Applicant has further provided embedded hyperlinks to provide information that appears material to the case, yet has not provided the specific documentation that these links point to, and have not affixed what date the material was retrieved on a separate paper. For example, the LOOM documentation and Ontosaurus related materials are listed but not included on a separate paper. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. In the instant case these documents have not been obtained and considered by the examiner, therefor do not appear on the PTO-892.

***Drawings***

5. The drawings are objected to because figure 2 is a hand drawing that is not clearly representative of the claimed invention. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
  
6. Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Figure 3 diagrams a computer which may run software that embodies the claimed invention, however the claimed invention is not detailed in the Figure. Similarly, figure 1 should be designated prior art, as it depicts nothing more than "mudding" with a standard implementation of a drilling rig. See M.P.E.P. § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

7. The disclosure is objected to because it contains numerous embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See M.P.E.P. § 608.01.

8. The disclosure is objected to because of the following informalities: the specification at page 6, lines 21-29 refers to third party licensing of essential matter which is inappropriately placed in the specification. Appropriate correction is required.

9. The specification is objected to for incorporation of essential material in the specification by reference to these publications which is improper, for example the LOOM documentation and associated hyperlinked documentation. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 U.S.P.Q. 157 (C.C.P.A. 1973); *In re Hawkins*, 486 F.2d 579, 179 U.S.P.Q. 163 (C.C.P.A. 1973); and *In re Hawkins*, 486 F.2d 577, 179 U.S.P.Q. 167 (C.C.P.A. 1973).

10. The specification is objected to for an apparent attempt to incorporate subject matter into this application by reference to the LOOM, Ontosaurus, CL-HTTP form MIT and Description Logics, are improper because it appears essential to the operation and functionality of the claimed invention, such that one of ordinary skill level would necessarily have to have in their possession the materials to understand the scope and level of enablement of the claimed invention and could not practice the invention without a license to a third party. Further, the essential matter has been integrated into the

specification through hyperlinks which are changing and may not be accessible in the future.

***Claim Rejections - 35 U.S.C. § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically the materials specific to the LOOM, Ontosaurus, CL-HTTP and Description Logics with associated software, libraries and tools as spelled out on pages 5-8 from multiple vendors and in at least one case requires a third party license to practice the invention, have not been embodied in the specification in such a manner that one of ordinary skill level would be able to draw from their individual teachings to reach the claimed invention. These products, though related in some manner, have not been shown within the instant specification so as to show how one of ordinary skill level would draw from their relative teachings and integrate those teachings to yield a workable model of the claimed invention without having to perform undue experimentation. The skill level in the art is readily shown by the prior art teachings which, with respect to their disclosure provide clear and unambiguous teaching of how

to embody their specific teachings. Presently, Applicant has provided a listing of available products which are not properly integrated to produce the instant invention.

12. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. LOOM and related documentation critical or essential to the practice of the invention as claimed are not enabled by the disclosure. Though LOOM is not specifically called out in any claim, except claim 3, though method of integrating and using the LOOM product is expressly stated in the specification and inferentially asserted through related limitations as to using an expert system. Further to use of an ontology as allegedly disclosed in the Web links has been inferentially recited in the claims. Without the subject matter that has been improperly reference through hyperlinks and related manuals the written description is incomplete and the disclosure is non-enabling, *id.* See *In re Mayhew*, 527 F.2d 1229, 188 U.S.P.Q. 356 (C.C.P.A. 1976).

#### ***Claim Rejections - 35 U.S.C. § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. The term "LOOM" in claim 3 is interrupted as a relative term which renders the claim indefinite since one cannot reasonably ascertain the scope of the claim. When a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 U.S.P.Q. 1020 (Bd. App. 1982).

The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but also constitutes an improper use of the trademark or trade name.

***Oath/Declaration***

14. The oath or declaration is defective. A new oath or declaration in compliance with 37 C.F.R. 1.67(a) identifying this application by application number and filing date is required. See M.P.E.P. §§ 602.01 and 602.02. The oath or declaration is defective because: It was not executed in accordance with either 37 C.F.R. 1.66 or 1.68.

Further, it appears that Mr. Flett's name is incorrectly spelled Fleet. Examiner is not clear which is actually correct, but due to known publications by Mr. Flett and related inventor's it is presumed that this inventor is actually Mr. Flett, not Mr. Fleet. Correction is required.

Moreover, due to art that is co-authored by Mr. Curry, Meany and Perry with the listed inventors an issue of inventorship has arisen and needs to be clarified through correction of the declaration or explanation of the contributions provided by each to the articles.

***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

15. Claims 1-9 are rejected under 35 U.S.C. 102(a) as being anticipated by "Better Knowledge Management Through Knowledge Engineering: A Case Study in Drilling Optimisation", Curry et al. [hereinafter referred to as Curry et al.]

Taking claim 1, for example, Curry et al. discloses:

A method comprising: obtaining raw drilling data and stored organizational drilling experience, providing an ontology of defined concepts and describe drilling operations, information which collectively represents captured and experience including drilling knowledge and drilling relationships which relate to and organizing said raw drilling data and information into a database in accordance with said ontology and in a data processing format;

providing an interface constructed of data processing instructions in a data processing format for receiving operator queries based upon user-specified criteria and for relevant or analogous knowledge or experience as an output in a human-readable format;

loading said database and said interface into at least one data processing system;

receiving at least one specified criteria;

user query relating to a particular drilling situation and in user-utilizing said at least one data processing system to retrieve from said database relevant or analogous drilling knowledge or experience utilizing said ontology and said user-specified criteria;

utilizing said interface to provide said experience to an operator;

relevant or analogous drilling knowledge or utilizing said relevant or analogous drilling knowledge or experience to make drilling decisions during drilling operations.(see Introduction, Abstract, Sections 1-6)

As to claim 2, the method of drilling descriptive logic, a wellbore, according to claim 1 , wherein said ontology is a descriptive logic is expressly taught in Curry et al.(entire document, especially sections 2, 3 and 4)

As to claim 3, the method of drilling a wellbore, according lo claim 2, wherein said ontology is a LOOM ontology is expressly taught in Curry et al.(See sections 4 and 5, and Figures 1 and 2)

As to claim 4, the method of drilling a wellbore, according to claim 1, wherein said ontology is composed of a plurality of base concepts and base relationships which may be combined to construct more complex concepts and complex relationships is expressly taught in Curry et al. (Sections 2, 3 and 4)

As to claim 5, the method of drilling a wellbore, according to claim 1, wherein said raw drilling information is organized in a subsumption hierarchy is expressly taught in Curry et al. (entire document, especially sections 2, 3 and 4)

As to claim 6, the method of drilling a wellbore, according to claim 1, wherein said raw drilling information is organized in accordance with at least the following concept categories:

historical experience;

wellbore environment factors; and

downhole equipment are taught in Curry et al. (entire document, especially sections 2, 3, 4, and 5)

As to claim 7, the method of drilling a wellbore, according to claim 6, wherein said historical experience includes a plurality of factors which describe a particular historical drilling situation and associated outcome is expressly taught in Curry et al. (entire document, especially sections 2, 3 – note drilling knowledge store, 4 and 5)

As to claim 8, the method of drilling a wellbore, according to claim 6, wherein said wellbore environment factors include at least one of the following factors:

drilling fluid properties;

rock properties; and

formation attributes are taught in Curry et al. (entire document, especially sections 2, 3, 4 and 5)

As to claim 9, the method of drilling a wellbore, according to claim 6, wherein said down hole equipment category includes at least one of the following items:

bottomhole assembly components; and

drill bit components are taught in Curry et al. (entire document, especially sections 3, 4 and 5- note Drill bit advisor.)

***Conclusion***

16. Prior art has been listed on a PTO-892, which is made of record and not relied upon, is considered pertinent to applicant's disclosure. Careful consideration is required prior to any response to this Office Action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William D. Thomson whose telephone number is 703-305-0022. The examiner can normally be reached on 8:30-3:30 Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Thomson

Primary Examiner

A.U. 2123

May 14, 2004